

REMARKS

In the present Amendment, claim 1 has been amended to recite that X represents a hydroxyl group which is protected by a removable protective group, and that the protecting reaction is to protect the hydroxyl group with a removable protective group by reacting the hydroxyl group with a sulfonyl chloride, a phosphoryl chloride or an acid anhydride. Section 112 support for the amendments is found, for example, at page 5, lines 3-5 and page 7, lines 6-24 of the specification. Also, independent claim 3 has been amended to recite the definition of X, rather than refer to the definition in claim 1. No new matter has been added, and entry of the Amendment is requested, respectfully.

Claims 1-7 are pending, of which claims 4-7 are withdrawn from consideration.

Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner states that claim 1 appears to require a “protecting reaction” to produce an *optionally* protected alcohol. The Examiner asserts that it is therefore unclear as to whether the “protection reaction” is, in fact, required since the product of the reaction is optional. The Examiner further asserts that it is unclear as to what is meant by “protecting reaction”.

As noted, claim 1 has been amended to recite that the hydroxyl group which is protected by a removable protective group and that the protecting reaction is a reaction to protect the hydroxyl group with a removable protective group by reacting the hydroxyl group with a sulfonyl chloride, a phosphoryl chloride or an acid anhydride.

Accordingly, the Examiner is requested, respectfully, to reconsider and withdraw this rejection.

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nelson (U.S. Patent No. 3,864,387) when considered with Umezawa et al (JP 001-275541) and Solomons (Organic Chemistry, 5th Edition, 1992, pages 240-242).

Applicants submit that this rejection should be withdrawn because Nelson, Umezawa et al and Solomons do not teach or disclose the present invention, either alone or in combination.

Present claim 1 relates to a process for producing (2R)-2-propyloctanoic acid, which comprises subjecting (2R)-2-hexyloxirane to a two-carbon adding reaction with ring-opening reaction, followed by a reaction to protect the hydroxyl group to obtain a compound represented by formula (I) and then subjecting the compound to a one-carbon adding reaction to convert it to (2R)-2-propyloctanamide, followed by recrystallization and hydrolysis. As a result, (2R)-2-propyloctanoic acid which is useful as pharmaceuticals for treating neurodegenerative diseases can be obtained with high optical purity.

Nelson discloses a method for producing a branched carboxylic acid by reacting a branched alkyl halide with sodium cyanide to form a nitrile and subsequently hydrolyzing the nitrile.

The Examiner asserts that the intermediate formation of the corresponding amide is obvious where a carboxylic acid is obtained by hydrolysis of a nitrile. However, Nelson does not disclose that the amide, which is an intermediate, is specifically isolated and that carboxylic acid can be obtained with high optical purity by including such step. Additionally, it is unknown whether carboxylic acid can be obtained with high optical purity by the method taught by Nelson.

Umezawa et al is cited as teaching the reaction of an optically active oxirane such as (R)-(+)-1,2-epoxyoctane with ethyl magnesium bromide in the presence of a copper catalyst to give

an optically active 4-decanol. Solomons is cited as teaching the conversion of a halide to the corresponding nitrile via a SN2 reaction, and that sulfonates are a good replacement for hydroxyl groups. Umezawa et al and Solomons do not make up for the deficiencies of Nelson.

In contrast, the present claims require the isolation step of (2R)-2-propyloctanamide, so that (2R)- 2-propyloctanoic acid with high optical purity can be obtained.

Accordingly, the present invention is not obtained by Nelson which does not mention isolation of the amide, even in combination with the teachings of Umezawa et al and Solomons.

In view of the above, reconsideration and withdrawal of the §103(a) rejection based on Nelson in view of Umezawa et al and Solomons are respectfully requested.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

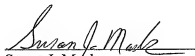
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